

## WEST Search History

DATE: Wednesday, September 25, 2002

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side		result set	
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ</i>			
L30	substrate\$ and soy adj sterol\$	14	L30
L29	L26 and soy adj sterol	0	L29
L28	L27 and soy adj sterol	0	L28
L27	L26 and ( petroleum or petrolatum)	17	L27
L26	(diaper or wipe\$ or training adj pant or underpant or incontinence adj product or sanitary\$)and ethylene adj vinylacetate adj copolymer	97	L26
L25	L2 and ethylene adj vinylacetate adj copolymer	23	L25
L24	L23 and wipe	2	L24
L23	L22 and soy adj sterol	2	L23
L22	L21 and dimethicone	14	L22
L21	L20 and sunflower adj oil	20	L21
L20	L19 and ozokerite adj wax	116	L20
L19	L18 and ( petroleum or petrolatum)	11331	L19
L18	(lotion or ointment)	57763	L18
L17	L6 and montmorillonite adj clay	11	L17
L16	L6 and alkyl adj dimethicone adj wax	1	L16
L15	L12 and alkyl adj dimethicone adj wax	1	L15
L14	L13 and alkyl adj dimethicone adj wax	1	L14
L13	L12 and montmorillonite adj clay	11	L13
L12	L6 and silica	29	L12
L11	l6 and collidal adj silica	0	L11
L10	L9 and alkyl adj dimethicone adj wax	1	L10
L9	L8 and montmorillonite adj clay	1	L9
L8	L7 and silica	4	L8
L7	L6 and soy adj sterol	4	L7
L6	L3 and dimethicone	44	L6
L5	L4 and dimethicone	0	L5
L4	L3 and sunflower adj oil	9	L4
L3	L2 and ozokerite adj wax	59	L3
L2	L1 and ( petroleum or petrolatum)	5600	L2
L1	(diaper or wipe\$ or training adj pant or underpant or incontinence adj product or sanitary\$ or bandage or wound adj dressing)	170042	L1

END OF SEARCH HISTORY

**WEST** **Generate Collection**

L34: Entry 4 of 4

File: USPT

Oct 27, 1998

DOCUMENT-IDENTIFIER: US 5827617 A

TITLE: Thermo-transfer ribbon

**Brief Summary Text (20):**

The waxes employed within the scope of the invention in layer B) are in accordance with the customary wax definition, subject to the above limitation of a melting point range of between approximately 70.degree. C. and 110.degree. C. Waxes having a melting point between 75.degree. C. and 95.degree. C. are specifically preferred within the scope of the invention. This involves, in its most comprehensive meaning, a material which is solidly to friably hard, coarse to fine crystalline, transparent to opaque, but which is not glass-like, which melts above approximately 70.degree. C., which is just a little above the melting point of relatively low viscosity and not stringy. Waxes of this type are classified a natural waxes, chemically-modified waxes, and synthetic waxes. Among the natural waxes, the vegetable waxes are particularly preferred, such as carnauba wax, candelilla wax, mineral waxes in the form of higher-melting ceresin and higher melting ozokerite (native paraffin), petrochemical paraffins, such as, for example, petrolatum, paraffin-waxes and microwaxes. Specifically preferred among the modified waxes are montanester waxes, hydrated caster oil and hydrated jojoba oil. Preferred among the synthetic waxes are polyalkylene waxes and polyethyleneglycol waxes, including products manufactured therefrom through oxidation and/or esterification. Amid waxes that can likewise be used, modified microcrystalline waxes being particularly preferred.

**Brief Summary Text (26):**

A central characteristic of the thermo-transfer ribbon according to the invention is that a wax-soluble polymer is contained in the two mentioned layers, A) and B). It is understood by "wax-soluble" in this case, that this polymer shows solubility in liquid wax. These do not necessarily involve "genuine solutions", but mostly stable dispersions. As a consequence, during cooling of such a solution of the polymer in wax, phase separation does not occur. In other words, the polymer is compatible with the wax. The melting index MFI lies at 25 g/10 min to 1000 g/10 min, preferably at 400 g/10 min to 800 g/10 min (DIN 53735/ISO 1133--see also Rompp Chemical Lexicon, V. 5, 9th Ed., page 4036, right hand column). Wax-soluble polymers, in the sense of the invention distinguish themselves in that they can be melted below approximately 100.degree. C. and in that they show stickiness in the melted state. Suitable polymers are, for example, ethylene-vinylacetate-copolymers, polyamides, ethylene-alkylacrylate-copolymers, ethylene-acryl-acid-copolymers, polyvinylether and polyisobutes, as well as ionomer resins. Particularly preferred among these are ethylene-acrylicacid-copolymers and ethylene-vinylacetate-copolymers (EVA).

**Brief Summary Text (35):**

The thermo-transfer ribbon according to the invention can be produced by various methods, using customary coating processes. This can be done, for example, by spraying or printing of a solution or dispersion, either by means of water or an organic solvent as dispersion agent or solvent, by application from the melt, which applies specifically with respect to the wax-based thermo-transfer color, or by means of normal coating with a wiper in the form of a watery suspension having finely distributed therein the-coating material. With respect to environmental considerations, the following procedure has proven itself particularly beneficial. First, a thin layer of a watery suspension of the starting materials of the separation layer is laid on the carrier, which, with evaporation of the water, causes the manufacture of layer A). After the development of layer A), follows the coating of a watery suspension of the starting material of the wax-based thermo-transfer color, whereby in customary fashion the water is evaporated after application of said material. The formed, dual-layered coating satisfies all

specifications within the scope of the assigned task. The thermo-transfer color can, however, also be applied, for instance with a wiper, to the separation layer in the form of a melt, according to the usual coating technologies. The temperature of the respective melt should, generally, be approximately 100.degree. C. to 130.degree. C. Following the coating, the applied materials are merely cooled down.

Detailed Description Text (4):

On a customary carrier made of polyester, having a thickness of approximately 6 .mu.m, a material consisting of the following components was applied by wiper in order to form the separation layer:

**CLAIMS:**

10. The thermo-transfer ribbon according to claim 1, characterized in that the wax-soluble polymer is selected from a group consisting of an ethylene-vinylacetate-copolymer, an ethylene-acryl-acid-copolymer, a polyamine and an ionomer resin.

[Generate Collection](#)[Print](#)

## Search Results - Record(s) 1 through 4 of 4 returned.

- 
1. 20020050016. 20 Feb 01. 02 May 02. Cleaning sheets comprising a polymeric additive to improve particulate pick-up and minimize residue left on surfaces and cleaning implements for use with cleaning sheets. Willman, Kenneth William, et al. 15/104.002; 15/208 15/209.1 15/228 15/231 15/244.2 428/343 A47L013/20.
- 
2. 20020042962. 30 Mar 01. 18 Apr 02. Cleaning sheets comprising a polymeric additive to improve particulate pick-up and minimize residue left on surfaces and cleaning implements for use with cleaning sheets. Willman, Kenneth William, et al. 15/208; 15/209.1 15/228 15/231 428/343 428/355AC A47L013/16 A47L013/20 B32B007/12 B32B015/04.
- 
3. 6291055. 06 May 99; 18 Sep 01. Thermo-transfer ribbon. Krauter; Heinrich. 428/195; 428/488.4 428/913 428/914. B41M005/10.
- 
4. 5827617. 11 Dec 96; 27 Oct 98. Thermo-transfer ribbon. Krauter; Heinrich. 428/484; 428/195 428/413 428/423.1 428/480 428/522 428/913 428/914. B41M005/26.
- 

[Generate Collection](#)[Print](#)

Term	Documents
PETROLATUM.DWPI,EPAB,JPAB,USPT,PGPB.	10463
PETROLATUMS.DWPI,EPAB,JPAB,USPT,PGPB.	292
(32 AND PETROLATUM).USPT,PGPB,JPAB,EPAB,DWPI.	4
(L32 AND PETROLATUM).USPT,PGPB,JPAB,EPAB,DWPI.	4

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## Search Results - Record(s) 1 through 2 of 2 returned.

- 
1. 20020050016. 20 Feb 01. 02 May 02. Cleaning sheets comprising a polymeric additive to improve particulate pick-up and minimize residue left on surfaces and cleaning implements for use with cleaning sheets. Willman, Kenneth William, et al. 15/104.002; 15/208 15/209.1 15/228 15/231 15/244.2 428/343 A47L013/20.
- 
2. 20020042962. 30 Mar 01. 18 Apr 02. Cleaning sheets comprising a polymeric additive to improve particulate pick-up and minimize residue left on surfaces and cleaning implements for use with cleaning sheets. Willman, Kenneth William, et al. 15/208; 15/209.1 15/228 15/231 428/343 428/355AC A47L013/16 A47L013/20 B32B007/12 B32B015/04.
- 

Term	Documents
ETHYLENE.DWPI,EPAB,JPAB,USPT,PGPB.	471087
ETHYLENES.DWPI,EPAB,JPAB,USPT,PGPB.	1532
VINYLACETATE.DWPI,EPAB,JPAB,USPT,PGPB.	10219
VINYLACETATES.DWPI,EPAB,JPAB,USPT,PGPB.	85
COPOLYMER.DWPI,EPAB,JPAB,USPT,PGPB.	433449
COPOLYMERS.DWPI,EPAB,JPAB,USPT,PGPB.	204315
PETROLATUM.DWPI,EPAB,JPAB,USPT,PGPB.	10463
PETROLATUMS.DWPI,EPAB,JPAB,USPT,PGPB.	292
TOWLETTE\$	0
TOWLETTE.DWPI,EPAB,JPAB,USPT,PGPB.	36
TOWLETTE\$.DWPI,EPAB,JPAB,USPT,PGPB.	24
((TOWLETTE\$ OR PAD\$) AND ETHYLENE ADJ VINYLACETATE ADJ COPOLYMER AND PETROLATUM).USPT,PGPB,JPAB,EPAB,DWPI.	2

[There are more results than shown above. Click here to view the entire set.](#)

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**WEST** **Generate Collection**

L37: Entry 3 of 3

File: USPT

Sep 17, 2002

DOCUMENT-IDENTIFIER: US 6451992 B1

TITLE: Antithrobin nucleotides and proteins from horn fly

Detailed Description Text (54):

Another possible method for controlling the duration of action comprises incorporating the therapeutic agents into particles of a polymeric substance such as polyesters, polyamino acids, hydrogels, poly(lactic acid) or ethylene vinylacetate copolymers. Alternatively, it is possible to entrap the therapeutic agents in microcapsules prepared, for example, by coacervation techniques or by interfacial polymerization, for example, by the use of hydroxymethyl cellulose or gelatin-microcapsules or poly(methylmethacrylate) microcapsules, respectively, or in a colloid drug delivery system, for example, liposomes, albumin, microspheres, microemulsions, nanoparticles, nanocapsules, or in macroemulsions. Such teachings are disclosed in Remington's Pharmaceutical Sciences (1980).

Detailed Description Text (59):

A composition for topical application can be in the form of an aqueous solution, lotion or gel, an oily solution or suspension or a fat-containing or, especially, emulsified ointment. A composition in the form of an aqueous solution is obtained, for example, by dissolving the active ingredients according to the invention, or a therapeutically acceptable salt thereof, in an aqueous buffer solution of from e.g., pH 4 to pH 6.5 and, if desired, adding a further active ingredient, for example an anti-inflammatory agent, and/or a polymeric binder, for example polyvinylpyrrolidone, and/or a preservative. The concentration of active ingredients is from approximately 0.1 to approximately 1.5 mg, preferably from 0.25 to 1.0 mg, in 10 ml of a solution or 10 g of a gel.

Detailed Description Text (60):

An oily form of administration for topical application is obtained, for example, by suspending the active ingredient according to the invention, or a therapeutically acceptable salt thereof, in an oil, optionally with the addition of swelling agents, such as aluminum stearate, and/or surfactants (tensides) having an HLB value ("hydrophilic-lipophilic balance") of below 10, such as fatty acid monomers of polyhydric alcohols, for example glycerin monostearate, sorbitan monolaurate, sorbitan monostearate or sorbitan monooleate. A fat-containing ointment is obtained, for example, by suspending the active ingredient according to the invention, or a salt thereof, in a spreadable fatty base, optionally with the addition of a tenside having an HLB value of below 10. An emulsified ointment is obtained by triturating an aqueous solution of the active ingredient according to the invention, or a salt thereof, in a soft, spreadable fatty base with the addition of a tenside having an HLB value of below 10. All these forms for topical application can also contain preservatives. The concentration of active ingredient is from approximately 0.1 to approximately 1.5 mg, preferably from 0.25 to 1.0 mg, in approximately 10 g of base.

Detailed Description Text (64):

Pupae were shipped from the U.S.D.A. Livestock Insects Research Laboratory in Kerrville, Tex., on a biweekly basis and stored at 4.degree. C. until needed. They were removed and placed in stainless steel cages (18".times.18".times.18") at room temperature (21-22.degree. C.) with 16:8 hours (L:D) to promote emergence of adults. An absorbent cotton pad was placed on top of each cage and used as a wick to supply fresh blood to adults on a daily basis.

## Search Results - Record(s) 1 through 3 of 3 returned.

1. 20020013565. 27 Jul 01. 31 Jan 02. Disposable absorbent articles with improved adhesive for attachment to the skin to facilitate water adhesion stability with low pain level removal. Cinelli, Fabio, et al. 604/385.03; 604/387 A61F013/15 A61F013/20.
2. 20020012792. 27 Jul 01. 31 Jan 02. Disposable absorbent articles with improved adhesive for attachment to the skin to facilitate adhesion in oily conditions. Cinelli, Fabio, et al. 428/343; 428/355AC 428/41.8 B32B009/00 B32B033/00 B32B007/12 B32B015/04 C08L001/00 C08J003/00 C08K005/05.
3. 6451992. 17 Aug 99; 17 Sep 02. Antithrobin nucleotides and proteins from horn fly. Cupp; Eddie Wayne, et al. 536/23.1; 424/143.1 424/152.1 424/172.1 424/178.1 435/252.33 435/320.1 435/6 435/69.1 435/7.1 530/350 530/388.22 530/389.1 530/391.1 530/391.7 530/395 536/24.5 536/25.2. C07H021/02.

Term	Documents
LOTION,DWPI,EPAB,JPAB,USPT,PGPB.	20689
LOTIONS,DWPI,EPAB,JPAB,USPT,PGPB.	20326
OINTMENT,DWPI,EPAB,JPAB,USPT,PGPB.	21952
OINTMENTS,DWPI,EPAB,JPAB,USPT,PGPB.	21695
(36 AND (OINTMENT OR LOTION)).USPT,PGPB,JPAB,EPAB,DWPI.	3
(L36 AND (LOTION OR OINTMENT)).USPT,PGPB,JPAB,EPAB,DWPI.	3

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## Search Results - Record(s) 1 through 7 of 7 returned.

1. 20020095001. 06 Feb 02. 18 Jul 02. Methods and compositions for topical treatment of damaged tissue using reactive oxygen metabolite production or release inhibitors. Gehlsen, Kurt R.. 514/725; 424/401 A61K031/07 A61K006/00 A61K007/00.
2. 20010018059. 19 Jan 01. 30 Aug 01. Methods and compositions for topical treatment of damaged tissue using reactive oxygen metabolite production or release inhibitors. Gehlsen, Kurt R.. 424/401; 424/59 424/65 424/70.6 424/70.7 514/844 514/887 A61K006/00 A61K007/00 A61K007/42 A61K007/32 A61K007/06.
3. 6350785. 19 Jan 01; 26 Feb 02. Methods and compositions for topical treatment of damaged tissue using reactive oxygen metabolite production or release inhibitors. Gehlsen; Kurt R.. 514/725; 424/401 424/64 424/70.1. A61K031/07.
4. 6270781. 08 Jan 99; 07 Aug 01. Method and compositions for topical treatment of damaged tissue using reactive oxygen metabolite production or release inhibitors. Gehlsen; Kurt R.. 424/401; 424/64 424/701 514/725. A61K007/021.
5. 5736553. 31 May 95; 07 Apr 98. Topical formulations and transdermal delivery systems containing 1-isobutyl-1H-imidazo[4,5-C]quinolin-4-amine. Wick; Steven M., et al. 514/293; 424/443 424/448 424/449. A61K031/44 A61K009/70.
6. 5238944. 03 Mar 92; 24 Aug 93. Topical formulations and transdermal delivery systems containing 1-isobutyl-1H-imidazo[4,5-c]quinolin-4-amine. Wick; Steven M., et al. 514/293; 514/558 514/947. A61K031/44 A61K031/20.
7. 5078993. 18 Dec 89; 07 Jan 92. Ointment pharmaceutical formulation. Breunig; Charles F.. 514/772.4;. A61K031/74 424 424.

Term	Documents
PETROLATUM.DWPI,EPAB,JPAB,USPT,PGPB.	10463
PETROLATUMS.DWPI,EPAB,JPAB,USPT,PGPB.	292
(38 AND PETROLATUM).USPT,PGPB,JPAB,EPAB,DWPI.	7
(L38 AND PETROLATUM).USPT,PGPB,JPAB,EPAB,DWPI.	7

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## WEST Search History

DATE: Wednesday, September 25, 2002

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side		result set	
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ</i>			
L39	L38 and petrolatum	7	L39
L38	(lotion or ointment) and ethylene adj vinylacetate adj copolymer	61	L38
L37	L36 and (lotion or ointment)	3	L37
L36	(towlette\$ or pad\$) and ethylene adj vinylacetate adj copolymer	159	L36
L35	(towlette\$ or pad\$) and ethylene adj vinylacetate adj copolymer and petrolatum	2	L35
L34	L32 and petrolatum	4	L34
L33	L32 and ( petroleum or petrolatum)	26	L33
L32	(wipe\$ or towlette\$ or pad\$) and ethylene adj vinylacetate adj copolymer	188	L32
L31	I26 and lotion	9	L31
L30	substrate\$ and soy adj sterol\$	14	L30
L29	L26 and soy adj sterol	0	L29
L28	L27 and soy adj sterol	0	L28
L27	L26 and ( petroleum or petrolatum)	17	L27
L26	(diaper or wipe\$ or training adj pant or underpant or incontinence adj product or sanitary\$)and ethylene adj vinylacetate adj copolymer	97	L26
L25	L2 and ethylene adj vinylacetate adj copolymer	23	L25
L24	L23 and wipe	2	L24
L23	L22 and soy adj sterol	2	L23
L22	L21 and dimethicone	14	L22
L21	L20 and sunflower adj oil	20	L21
L20	L19 and ozokerite adj wax	116	L20
L19	L18 and ( petroleum or petrolatum)	11331	L19
L18	(lotion or ointment)	57763	L18
L17	L6 and montmorillonite adj clay	11	L17
L16	L6 and alkyl adj dimethicone adj wax	1	L16
L15	L12 and alkyl adj dimethicone adj wax	1	L15
L14	L13 and alkyl adj dimethicone adj wax	1	L14
L13	L12 and montmorillonite adj clay	11	L13
L12	L6 and silica	29	L12
L11	I6 and collidal adj silica	0	L11
L10	L9 and alkyl adj dimethicone adj wax	1	L10
L9	L8 and montmorillonite adj clay	1	L9
L8	L7 and silica	4	L8
L7	L6 and soy adj sterol	4	L7
L6	L3 and dimethicone	44	L6
L5	L4 and dimethicone	0	L5
L4	L3 and sunflower adj oil	9	L4
L3	L2 and ozokerite adj wax	59	L3
L2	L1 and ( petroleum or petrolatum)	5600	L2
..	(diaper or wipe\$ or training adj pant or underpant or incontinence adj product or sanitary\$)	..	..

L1 or bandage or wound adj dressing)

170042 L1

END OF SEARCH HISTORY

## Search Results - Record(s) 1 through 9 of 9 returned.

- 
1. 20020128621. 21 Dec 01. 12 Sep 02. Absorbent articles with simplified compositions having good stability. Kruchoski, Benjamin Joseph, et al. 604/385.01; 604/364 A61F013/15.
- 
2. 20020128615. 22 Dec 00. 12 Sep 02. Absorbent articles with non-aqueous compositions containing anionic polymers. Tyrrell, David John, et al. 604/364; 424/443 604/304 604/360 604/367 604/376 604/378 A61F013/15 A61F013/20.
- 
3. 20020025915. 06 Apr 01. 28 Feb 02. High Di(alkyl fatty ester) amines and quaternary ammonium compounds derived therefrom. Franklin, Ralph, et al. 510/515; C11D003/00.
- 
4. 6323167. 20 Dec 99; 27 Nov 01. High di(alkyl fatty ester) quaternary ammonium compounds in fabric softening and personal care compositions. Franklin; Ralph, et al. 510/123; 424/69 424/70.1 424/70.11 510/138 510/329 510/330 514/880. A61K007/075 A61K007/50 A61K007/035 A61K007/06.
- 
5. 6037315. 04 Dec 97; 14 Mar 00. High di(alkyl fatty ester) quaternary ammonium compounds in fabric softening and personal care compositions. Franklin; Ralph, et al. 510/123; 510/138 510/329 510/330. A61K007/045 A61K007/50 C11D003/42.
- 
6. 5814323. 15 Oct 96; 29 Sep 98. Cosmetic composition. Lyle; Ian Gardner. 424/401; 424/63 424/70.1. A61K007/00.
- 
7. 5610187. 07 Jun 95; 11 Mar 97. Biodegradable quaternary hair and skin conditioners. Manning; Monna M., et al. 514/552; 424/70.1 514/937 514/938 514/939 514/943 554/103 554/108. A61K031/23.
- 
8. 5603953. 23 May 95; 18 Feb 97. Supported liquid membrane delivery devices. Herbig; Scott M., et al. 424/473; 424/451 424/463 424/468 424/475 424/480 424/482 424/489 424/494 424/497 514/772.3 514/773 514/784 514/785. A61K009/30 A61K009/32 A61K009/36 A61K009/22.
- 
9. 5552137. 05 Aug 94; 03 Sep 96. Biodegradable quaternary hair conditioners. Manning; Monna M., et al. 424/70.1; 514/755 514/873. A61K007/75.
- 

Term	Documents
SUNFLOWER.DWPI,EPAB,JPAB,USPT,PGPB.	14238
SUNFLOWERS.DWPI,EPAB,JPAB,USPT,PGPB.	1495
OIL.DWPI,EPAB,JPAB,USPT,PGPB.	1001889
OILS.DWPI,EPAB,JPAB,USPT,PGPB.	189629
(3 AND (SUNFLOWER ADJ OIL)).USPT,PGPB,JPAB,EPAB,DWPI.	9
(L3 AND SUNFLOWER ADJ OIL).USPT,PGPB,JPAB,EPAB,DWPI.	9

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## Search Results - Record(s) 1 through 4 of 4 returned.

1. 20020128621. 21 Dec 01. 12 Sep 02. Absorbent articles with simplified compositions having good stability. Kruchoski, Benjamin Joseph, et al. 604/385.01; 604/364 A61F013/15.

2. 20020128615. 22 Dec 00. 12 Sep 02. Absorbent articles with non-aqueous compositions containing anionic polymers. Tyrrell, David John, et al. 604/364; 424/443 604/304 604/360 604/367 604/376 604/378 A61F013/15 A61F013/20.

3. 20020058056. 24 Aug 01. 16 May 02. Treated substrate with improved transfer efficiency of topical application. Yahiaoui, Ali, et al. 424/402; 424/404 424/443 A01N025/34 A61K009/70 A61F013/00.

4. 6153209. 28 Sep 99; 28 Nov 00. Article having a transferable breathable skin care composition thereon. Vega; Victor Nicholas, et al. 424/404; 424/400 424/445 424/76.1 424/76.3 604/363 604/364 604/381 604/382. A01N025/34 A61L009/00 A61F013/15.

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Term	Documents
SOY.DWPI,EPAB,JPAB,USPT,PGPB.	30359
SOYS.DWPI,EPAB,JPAB,USPT,PGPB.	36
STEROL.DWPI,EPAB,JPAB,USPT,PGPB.	4945
STEROLS.DWPI,EPAB,JPAB,USPT,PGPB.	4686
(6 AND (SOY ADJ STEROL)).USPT,PGPB,JPAB,EPAB,DWPI.	4
(L6 AND SOY ADJ STEROL).USPT,PGPB,JPAB,EPAB,DWPI.	4

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## Search Results - Record(s) 1 through 1 of 1 returned.

1. 20020058056. 24 Aug 01. 16 May 02. Treated substrate with improved transfer efficiency of topical application. Yahiaoui, Ali, et al. 424/402; 424/404 424/443 A01N025/34 A61K009/70 A61F013/00.

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Term	Documents
MONTMORILLONITE.DWPI,EPAB,JPAB,USPT,PGPB.	16606
MONTMORILLONITES.DWPI,EPAB,JPAB,USPT,PGPB.	1571
CLAY.DWPI,EPAB,JPAB,USPT,PGPB.	123699
CLAYS.DWPI,EPAB,JPAB,USPT,PGPB.	36250
(8 AND (MONTMORILLONITE ADJ CLAY)).USPT,PGPB,JPAB,EPAB,DWPI.	1
(L8 AND MONTMORILLONITE ADJ CLAY).USPT,PGPB,JPAB,EPAB,DWPI.	1

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**WEST**

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## Search Results - Record(s) 1 through 1 of 1 returned.

1. 20020058056. 24 Aug 01. 16 May 02. Treated substrate with improved transfer efficiency of topical application. Yahiaoui, Ali, et al. 424/402; 424/404 424/443 A01N025/34 A61K009/70 A61F013/00.

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Term	Documents
ALKYL.DWPI,EPAB,JPAB,USPT,PGPB.	937402
ALKYLS.DWPI,EPAB,JPAB,USPT,PGPB.	18174
DIMETHICONE.DWPI,EPAB,JPAB,USPT,PGPB.	3457
DIMETHICONES.DWPI,EPAB,JPAB,USPT,PGPB.	446
WAX.DWPI,EPAB,JPAB,USPT,PGPB.	126798
WAXES.DWPI,EPAB,JPAB,USPT,PGPB.	47618
(6 AND ((ALKYL ADJ DIMETHICONE) ADJ WAX)).USPT,PGPB,JPAB,EPAB,DWPI.	1
(L6 AND ALKYL ADJ DIMETHICONE ADJ WAX).USPT,PGPB,JPAB,EPAB,DWPI.	1

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**WEST** 

L13: Entry 11 of 11

File: USPT

Mar 8, 1994

DOCUMENT-IDENTIFIER: US 5292530 A

TITLE: Stable anhydrous topically-active composition and suspending agent therefor

Abstract Text (1):

An anhydrous, topically-effective composition that resists phase separation and exhibits improved properties comprising a topically-active compound, such as an astringent salt; an improved suspending agent comprising a finely-divided silica and a suspending wax composition; and a suitable volatile liquid carrier, such as a volatile silicone or a volatile hydrocarbon. The suspending wax composition comprises a wax, an ester including at least 10 to about 32 carbon atoms and a volatile liquid carrier. The anhydrous, topically-effective composition is useful in topical cosmetic and medicinal preparations, such as antiperspirants, sunscreens and topical drug products, and is especially useful in cosmetic and medicinal preparations wherein an insoluble topically-active compound is dispersed throughout a liquid phase.

Brief Summary Text (2):

The present invention is directed to an anhydrous composition including a new and improved suspending agent, wherein the anhydrous composition effectively resists phase separation and is useful for the topical delivery of a topically-active component. More particularly, the anhydrous composition of the present invention is an unexpectedly stable suspension useful for the improved topical delivery of a topically-active compound, either cosmetic or medicinal, to the skin. Therefore, in general, the present invention is directed to an anhydrous, topically-effective composition comprising a topically-active compound, such as an antiperspirant compound, like a powdered astringent salt; a suspending agent including a finely-divided silica and a suspending wax composition; and a suitable volatile liquid carrier. The topically-effective composition effectively resists phase separation; reduces whitening and staining to skin and clothing after topical application; effectively delivers the topically-active compound; and exhibits superior sensory properties.

Brief Summary Text (6):

Stable, nonseparating antiperspirant compositions also are known in the art. U.S. Pat. No. 4,749,569 discloses an extrudable antiperspirant paste, or cream, composition stabilized against phase separation by thickening the antiperspirant composition with from 4.6% to 9.5% of a finely-divided silica and from 2% to 25% of a quaternized three-layer clay exfoliated with a polar solvent. If a finely-divided silica is used as the sole thickening, or suspending, agent, then an unstable product results. Therefore, an additional suspending agent, like an organoclay, is included in the composition. However, the presence of an organoclay in an antiperspirant composition is a principal source of the whitening and staining of the skin and clothing.

Brief Summary Text (9):

Bissett et al., in European Patent Application No. 88309740.4, disclose pharmaceutical and cosmetic compositions including tocopherol sorbate for topical application to the skin. The Bissett et al. application is directed to compositions that protect the skin from the harmful effects of sunbathing. Bissett et al. do not teach a stable liquid or cream composition comprising a topically-active compound and a suspending agent including a finely-divided silica and a suspending wax composition, wherein the composition resists phase separation and is nonwhitening and nonstaining to skin and clothing.

Brief Summary Text (11):

Shin U.S. Pat. No. 4,937,069 discloses an anhydrous semi-solid antiperspirant composition that includes a minimum of 2% by weight fumed silica; a volatile emollient; a nonvolatile emollient; and a thickener. The composition disclosed by Shin is a cream or gel having a viscosity in the range of 100,000 to 8,800,000 cps (centipoise). The present composition is a liquid or a flowable semisolid including a maximum of less than 2% by weight finely-divided silica and demonstrating a viscosity in the range of from about 1,000 to about 100,000 cps.

Brief Summary Text (13):

Similarly, Spitzer et al., in U.S. Pat. No. 4,174,386, disclose an aerosol antiperspirant composition utilizing a volatile hydrocarbon including about three or four carbon atoms as the propellant. The present composition also can include a volatile hydrocarbon. However, the hydrocarbons used in the present invention include at least 10 carbon atoms and up to about 32 carbon atoms; act as a volatile carrier for the nonvolatile components of the composition; and then evaporate from the skin or hair after topical application of the composition. The stability of the anhydrous compositions of the present invention, achieved with a new and improved suspending agent including a finely-divided silica and a suspending wax composition, is unexpectedly superior to each of the above-identified prior compositions in regard to syneresis, cosmetic feel and degree of skin and clothing staining.

Brief Summary Text (15):

The present invention is directed to a stable, anhydrous composition comprising a topically-active compound; a new and improved suspending agent comprising a finely-divided silica and a suspending wax composition; and a suitable volatile liquid carrier. The suspending wax composition comprises a natural or a synthetic wax, like castor wax; a volatile silica or a volatile hydrocarbon; and an aliphatic ester including at least 10 to about 32 carbon atoms.

Brief Summary Text (17):

Another undesirable esthetic, or sensory, property improved by the present composition is grittiness. Previous compositions included relatively large amount of finely-divided silica, i.e. 2% or greater by weight, in order to sufficiently suspend the particulate ingredients present in the composition. However, the new and improved suspending agent of the present invention utilizes less than 2% by weight finely-divided silica, thereby effectively overcoming the problem of grittiness. Other undesirable esthetic properties reduced or eliminated by a composition of the present invention include oiliness and long-drying times caused by high percentages or traditional emollients and polyols; and whitening and staining of skin and clothing caused by organoclay suspending agents.

Brief Summary Text (18):

In addition, it has been found that the addition of a suspending emollient, such as a non-volatile silicone, an aromatic ester, an aliphatic ester, a high molecular weight polyol or an oil-soluble surfactant, to an anhydrous topically-effective composition of the present invention, further reduces or eliminates phase separation by enhancing the intermolecular bond formation, and therefore the suspending ability, of the finely-divided silica in the suspending agent. It should be understood that if an aromatic or aliphatic ester is included as the suspending emollient, the aromatic or aliphatic ester is added to the composition independently from the ester that is present in the suspending wax composition.

Brief Summary Text (21):

Another aspect of the present invention is to provide a stable, anhydrous, topically-effective composition including a topically-active compound, a suspending agent comprising a finely-divided silica and a suspending wax composition, wherein the topically-effective composition includes less than 2% by weight of the finely-divided silica; and a suitable volatile liquid carrier, wherein the composition has a viscosity in the range of from about 1,000 to about 100,000 cps.

Brief Summary Text (23):

Another aspect of the present invention is to provide an anhydrous, topically-effective composition useful as an antiperspirant and including a volatile silicone or volatile hydrocarbon compound, wherein the volatile hydrocarbon includes from about 10 to about 30 carbon atoms; an astringent salt; and a suspending agent

comprising a finely-divided silica and a suspending wax composition, wherein the composition includes less than 2% by weight of the finely-divided silica.

Brief Summary Text (27):

Other aspects of the present invention include providing an anhydrous, topically-effective composition for the administration of topically-active compounds, such as topically effective drugs and medicaments, topical anesthetics, sunscreen agents, skin-soothing emollients and other topical cosmetic compounds, topical anti-inflammatories and the like by incorporating the topically-active compound in an anhydrous composition comprising a new and improved suspending agent including a finely-divided silica and a suspending wax composition; and a volatile silicone, a volatile hydrocarbon or a combination thereof.

Brief Summary Text (30):

A stable, anhydrous, topically-effective composition of the present invention includes a topically-active compound, such as an antiperspirant compound, like an astringent salt; a suspending agent comprising a finely-divided silica and a suspending wax composition; and a suitable volatile liquid carrier. The topically-effective composition is a liquid, a flowable semisolid or a nonflowable semisolid composition having a viscosity in the range of from about 1,000 to about 100,000 cps that is applied to the skin or hair. The liquid carrier then evaporates leaving the topically-active compound and other composition ingredients in contact with the skin or hair.

Brief Summary Text (32):

The topically-effective composition includes a suspending agent comprising a finely-divided silica and a suspending wax composition. The suspending wax composition comprises a natural or a synthetic wax, like castor wax; a volatile silicone, a volatile hydrocarbon including from about 10 to about 30 carbon atoms or a combination thereof; and an ester including at least 10 to about 32 carbon atoms. In accordance with an important feature of the present invention, the topically-effective composition includes less than 2% by weight of the finely-divided silica and about 4.5% or less by weight of the natural or synthetic wax.

Brief Summary Text (33):

More particularly, the stable, anhydrous, topically-effective composition of the present invention includes from about 0.01% to about 50% by weight of the total composition of a topically-active compound, such as an astringent salt having antiperspirant properties; a suspending agent comprising from about 0.1% to less than 2% by weight of the total composition of a finely-divided silica, as a thickening agent, and from about 1% to about 15% by weight of the total composition of a suspending wax composition; and from about 20% to about 98% by weight of the total composition of a suitable volatile liquid carrier.

Brief Summary Text (40):

In addition to antiperspirant compounds, other topically-active compounds can be included in the anhydrous compositions of the present invention in an amount sufficient to perform their intended function. For example, zinc oxide, titanium dioxide or similar compounds can be included if the composition is intended to be a sunscreen. Similarly, topically-active drugs, like antifungal compounds; antibacterial compounds; anti-inflammatory compounds; topical anesthetics; skin rash, skin disease and dermatitis medications; and anti-itch and irritation-reducing compounds can be included in the compositions of the present invention. For example, analgesics such as benzocaine, dyclonine hydrochloride, aloe vera and the like; anesthetics such as butamben picrate, lidocaine hydrochloride, xylocaine and the like; antibacterials and antiseptics, such as povidone-iodine, polymyxin b sulfate-bacitracin, zinc-neomycin sulfate-hydrocortisone, chloramphenicol, methylbenzethonium chloride, and erythromycin and the like; antiparasitics, such as lindane; deodorants, such as chlorophyllin copper complex, aluminum chloride, aluminum chloride hexahydrate, and methylbenzethonium chloride; essentially all dermatologicals, like acne preparations, such as benzoyl peroxide, erythromycin-benzoyl peroxide, clindamycin phosphate, 5,7-dichloro-8-hydroxyquinoline, and the like; anti-inflammatory agents, such as alclometasone dipropionate, betamethasone valerate, and the like; burn relief

ointments, such as o-amino-p-toluenesulfonamide monoacetate and the like; depigmenting agents, such as monobenzone; dermatitis relief agents, such as the active steroid amcinonide, diflorasone diacetate, hydrocortisone, and the like; diaper rash relief agents, such as methylbenzethonium chloride and the like; emollients and moisturizers, such as mineral oil, PEG-4 dilaurate, lanolin oil, petrolatum, mineral wax and the like; fungicides, such as butocouazole nitrate, haloprogin, clotrimazole, and the like; herpes treatment drugs, such as 9-[(2-hydroxyethoxy)methyl]guanine; pruritic medications, such as alclometasone dipropionate, betamethasone valerate, isopropyl myristate MSD, and the like; psoriasis, seborrhea and scabicide agents, such as anthralin, methoxsalen, coal tar and the like; sunscreens, such as octyl p-(dimethylamino)benzoate, octyl methoxycinnamate, oxybenzone and the like; steroids, such as 2-(acetyloxy)-9-fluoro-1',2',3',4'-tetrahydro-11-hydroxypregna-1,4-dieno[16,17-b]naphthalene-3,20-dione and 21-chloro-9-fluoro-1',2',3',4'-tetrahydro-11b-hydroxypregna-1,4-dieno[16z,17-b]naphthalene-3,20-dione. Any other medication capable of topical administration also can be incorporated in an anhydrous composition of the present invention in an amount sufficient to perform its intended function.

Brief Summary Text (49):

The suspending agent of the present composition comprises: (i) a finely-divided silica, and (ii) a suspending wax composition. The finely-divided silica used in the suspending agent of the present invention helps suspend the particulate topically-active compound in the volatile liquid carrier; aids in absorbing the volatile liquid carrier; and aids in reducing the preventing composition separation. The finely-divided silica is present in a composition of the present invention in the range of from about 0.1% to less than 2%, and preferably in the range of from about 0.1% to about 1.5%, by weight of the composition to provide a sufficient composition consistency suitable for use in a roll-on topically-effective product. To achieve the full advantage of the present invention, the finely-divided silica is present in the range of from about 0.2% to about 1.5% by weight of the composition.

Brief Summary Text (50):

Amounts of finely-divided silica in the range of from about 1.5% up to less than 2% by weight of the composition can be used to provide a topically-effective composition having the consistency of a flowable semisolid that demonstrates thixotropic rheological properties, if the amount of a suspending wax composition included in the composition is near its lower limit, such as from about 1% to about 5% by weight of the composition. Such flowable semisolids exhibit a viscosity in the range of from about 5,000 to about 40,000 cps. Including amounts of finely-divided silica in excess of about 2% by weight provides a composition that has too stiff of a consistency and that has a gritty, and therefore, unpleasant and unacceptable, consistency and feel.

Brief Summary Text (51):

If the amount of the suspending wax composition in the topically-active composition is above about 5% by weight, and if the amount of finely-divided silica is in the range of about 1.5% to less than 2% by weight, the topically-effective composition is a nonflowable semisolid having a viscosity in the range of from about 40,000 to about 100,000 cps. At lower amounts of suspending wax composition and finely-divided silica, the topically-effective composition is a liquid having a viscosity of from about 1,000 to about 5,000 cps.

Brief Summary Text (52):

In accordance with an important feature of the present invention, the finely-divided silica should have an average particle size in the range of from about 0.001.mu. (microns) to about 0.05.mu., and preferably in the range of from about 0.005.mu. to about 0.03.mu.. To achieve the full advantage of the present invention, the finely-divided silica has an average particle size in the range of from about 0.01.mu. to about 0.02.mu.. A suitable finely-divided silica is fumed silica having an average particle size ranging from about 0.014.mu. to about 0.016.mu., and available from Cabot Corp., Tuscola, Fla. under the tradename CAB-O-SIL M-5, or from DeGussa Corp., Teterboro, N.J. under the tradename AEROSOL COLLOIDAL SILICA. It also was found that shearing the finely-divided silica prior to adding the silica to the volatile liquid carrier vehicle of the present invention further enhanced

intermolecular silica bond formation, thereby further contributing to reduced phase separation.

Brief Summary Text (57):

Therefore, waxes having a melting point of at least 150.degree. F. (65.6.degree. C.) and that improve the rigidity of the suspending wax composition include, but are not limited to, castor wax, beeswax, carnauba wax, ozokerite wax, candellila wax and montan wax. To achieve the full advantage of the present invention, castor wax, comprising glyceryl tri(2-hydroxystearate), is used as the wax. Castor wax is a hard, high-melting wax that demonstrates good heat stability; is compatible with the majority of other waxes; and is an excellent substitute for the expensive, high-melting natural waxes. Other suitable waxes include, but are not limited to, polyethylene wax, stearic acid, palmitic acid, hydrogenated fats, microcrystalline wax, lanolin wax, polyoxyethylene, bayberry wax, Japan wax, jojoba wax, mink wax, ouricury wax, rice bran wax, shellac wax and combinations thereof.

Brief Summary Text (94):

The suspending wax composition effectively helps disperse and suspend the topically-active compound thereby requiring a low amount of finely-divided silica, i.e. below 2%, and often below 1%, by weight, to provide an essentially syneresis-free, topically-effective composition having a viscosity in the range of from about 1,000 to about 100,000 cps, and preferably in the range of from about 1,000 to about 40,000 cps. To achieve the full advantage of the present invention the topically-effective composition has a viscosity in the range of from about 1,000 to about 5,000 cps. Accordingly, the composition provides an added advantage in overcoming the gritty and scratchy feel of a topically-effective composition that includes a finely-divided silica in an amount of 2% by weight or greater. Consequently, the topically-effective composition is suitable as a cosmetic roll-on product that does not require shaking prior to use; that reduces whitening and nonstaining, and is non-oily after topical application; that dries quickly after topical application; and that exhibits improved efficacy and sensory properties.

Brief Summary Text (95):

To demonstrate the effect of the finely-divided silica and the suspending wax composition on the viscosity of composition of the present invention, several compositions including varying amounts of finely-divided silica and suspending wax composition were prepared, then the viscosity of each composition was determined by standard procedures. The viscosities of the compositions are tabulated below in TABLE I. The data in TABLE I shows that the viscosity of the composition can be varied by adjusting the soluble and the relative amounts of the finely-divided silica and the suspending wax composition in the topically-effective composition. It should be noted however that if the amount of natural or synthetic wax in the topically-effective composition exceeds about 4.5% by total weight of the composition, the viscosity is too high and the composition is too hard, thereby having an unsuitable consistency to perform as a roll-on product. TABLE I illustrates that the amount of finely-divided silica and suspending wax composition in the topically-effective semisolid can be varied to provide either a liquid composition (Composition F), a flowable semisolid composition (Compositions A and B), or a nonflowable semisolid composition (Compositions C, D and E). Each composition A through F exhibited essentially no syneresis after extended storage periods, and each composition was easy to apply and exhibited excellent esthetic properties after application.

Brief Summary Text (98):

The nonvolatile silicone oil suspending emollient can be a nonvolatile dimethylpolysiloxane fluid or a nonvolatile diphenylsiloxane fluid. A preferred nonvolatile silicone is a dimethylsiloxane fluid listed in the CTFA Dictionary as a dimethicone and has a viscosity of at least about 10 centistokes.

Brief Summary Text (101):

In addition to the ingredients listed above, the anhydrous, topically-effective compositions of the present invention also can include other optional ingredients that are conventionally included in topical cosmetic and medicinal compositions. For example, fragrances can be incorporated into the anhydrous, topically-effective composition in an amount of from 0% to about 5% based on the total weight of the

composition. The composition of the present invention, when applied to skin, therefore fixes a substantive fragrance film on the skin that resists moisture, but that can be removed by washing. Other optional ingredients that can be included in the anhydrous composition of the present invention include, but are not limited to, drying agents, like talc or DRY FLO (aluminum starch octenylsuccinate); preservatives; and dyes. Generally, such optional ingredients are present in a composition of the present invention in an amount of about 10% or less by weight. In addition, although the necessity of including an organoclay is virtually eliminated by the use of the new and improved suspending agent, an organoclay can be included in a composition of the present invention as an additional suspending agent in an amount of up to 20% by weight of the composition. An organoclay is especially helpful as an anticaking agent to maintain a particulate topically-effective compound homogeneously dispersed throughout the composition. An exemplary organoclay is a quaternized three-layer clay exfoliated with a polar solvent, like a quaternized montmorillonite clay exfoliated with propylene carbonate.

Detailed Description Text (3):

The fumed silica was dispersed in the volatile liquid cyclomethicone, and the mixture was thoroughly blended until homogeneous. The aluminum chlorohydrate and the suspending wax composition then were added to the silica-silicone mixture, and the resulting mixture was charged through a colloid mill for at least two minutes until homogeneous. The resulting composition was a flowable semisolid having rheological physical properties suitable for use as a roll-on antiperspirant product, such as a viscosity of about 20,000 cps. When topically-applied to the skin, the antiperspirant product was dry to opposed to oily or sticky; and the antiperspirant product exhibited excellent esthetic properties. After an approximately one year aging period at 27.degree. C., the antiperspirant product of Example 1 showed negligible phase separation.

Detailed Description Text (6):

The fumed silica was dispersed in the dimethicone and cyclomethicone, and the mixture was thoroughly blended until homogeneous. The aluminum chlorohydrate and suspending wax composition then were added to the silica-silicone mixture, and the resulting mixture was mixed at a high shear in a colloid mill until homogeneous. The resulting liquid composition possessed suitable physical properties, like a viscosity of about 4,000 cps, for use as a roll-on antiperspirant product. When topically applied to the skin, the antiperspirant product was dry, as opposed to oily or sticky, and the antiperspirant product exhibited excellent esthetic properties. The antiperspirant product showed negligible phase separation after a greater than one year aging period at 27.degree. C. The viscosity of the composition decreased over this period.

Detailed Description Text (9):

The fumed silica was dispersed in the C.sub.12 -C.sub.15 alcohol benzoate and the cyclomethicone, and the mixture was thoroughly blended until homogeneous. The aluminum chlorohydrate and the suspending wax composition then were added to the silica-silicone-benzoate mixture, and the resulting mixture was charged through a colloid mill for at least 2 minutes. The resulting liquid composition possessed physical properties suitable for use as a roll-on antiperspirant product. When topically-applied to the skin, the resulting antiperspirant product was dry, as opposed to oily or sticky, and the antiperspirant product exhibited excellent esthetic properties. The antiperspirant product showed negligible phase separation after an approximately 1 year aging period at 27.degree. C.

Detailed Description Text (12):

The fumed silica was dispersed in a blend of polysorbate 60, the C.sub.12 -C.sub.15 alcohol benzoate and the cyclomethicone, then the mixture was thoroughly blended until homogeneous. The aluminum chlorohydrate and the suspending wax composition were added to the homogeneous mixture, and the resulting mixture was charged through a colloid mill for at least 2 minutes until homogeneous. The resulting liquid composition possessed physical properties suitable for use as a roll-on antiperspirant product. When topically-applied to the skin, the antiperspirant product was dry, as opposed to oily or sticky, and the antiperspirant product exhibited excellent esthetic properties. The antiperspirant product showed essentially no phase separation after an approximately 1 year aging period at

27.degree. C.

Detailed Description Text (15):

The fumed silica, dimethicone, and C.sub.12 -C.sub.15 alcohol benzoate were thoroughly admixed until the fumed silica was uniformly dispersed. The cyclomethicone and the polysorbate 60 were added to the mixture, and the resulting mixture then was transferred to a colloid mill and mixed for 2 minutes until the mixture was homogeneous. The aluminum chlorohydrate then was added, and the composition was mixed until the aluminum chlorohydrate was completely dispersed. The suspending wax composition then was added to the mixture, and the resulting mixture was mixed until homogeneous. The homogeneous mixture then was returned to the colloid mill and mixed for at least 3 minutes. The resulting composition possessed physical properties suitable for use as a roll-on antiperspirant product. When topically-applied to the skin, the antiperspirant product was dry, as opposed to oily or sticky, and the antiperspirant product exhibited excellent esthetic properties. The antiperspirant product showed no phase separation after a greater than one year aging period at 27.degree. C.

Detailed Description Text (18):

The fumed silica, dimethicone and cyclomethicone were thoroughly admixed until the fumed silica was uniformly dispersed. The mixture then was transferred to a colloid mill and mixed for at least 2 minutes, or until the mixture was homogeneous. The aluminum chlorohydrate and the hydrophobic starch derivative then were added to the mixture, and the resulting mixture was blended until both additives were completely dispersed. The suspending wax composition then was added to the mixture, and the resulting mixture was mixed until homogeneous. A premix of the dioctyl adipate and the fragrances then was added to the homogeneous mixture. The resulting mixture was returned to the colloid mill and mixed for at least 3 minutes. The final liquid composition possessed physical properties suitable for use as a roll-on antiperspirant product. When topically-applied to the skin, the antiperspirant product was dry, as opposed to oily or sticky, and the antiperspirant product exhibited exceptional esthetic properties. The antiperspirant product showed negligible phase separation after a greater than one year aging period at 27.degree. C.

Detailed Description Text (21):

The fumed silica, dimethicone, cyclomethicone, polysorbate 60 and C.sub.12 -C.sub.15 alcohol benzoate were thoroughly admixed until the fumed silica was uniformly dispersed. The mixture then was transferred to a colloid mill and mixed for at least 2 minutes until homogeneous. The aluminum chlorohydrate and the hydrophobic starch derivative then were added to the mixture, and the resulting mixture was mixed until the aluminum chlorohydrate was completely dispersed. The suspending wax composition and the BENTONE GEL then were added to the mixture, and the resulting mixture was mixed until homogeneous. A premix of the dioctyl adipate and the fragrance then was added to the homogeneous mixture. The resulting mixture was returned to the colloid mill and mixed for at least 3 minutes. The composition then was mixed with a turbine propeller until the composition was uniform and homogeneous. The composition possessed physical properties suitable for use as a roll-on antiperspirant product. When topically-applied to the skin, the antiperspirant product was dry, as opposed to oily or sticky, and the antiperspirant product exhibited exceptional esthetic properties. However, because of the presence of an organoclay, i.e., the BENTONE GEL, this particular antiperspirant product demonstrated increased whitening and staining of the skin and clothes. The antiperspirant product showed negligible phase separation after a greater than one year aging period at 27.degree. C.

Detailed Description Text (24):

The fumed silica was dispersed in the volatile liquid cyclomethicone, and the mixture was thoroughly blended until homogeneous. The aluminum chlorohydrate and the suspending wax composition then were added to the silica-silicone mixture, and the resulting mixture was charged through a colloid mill for at least two minutes until homogeneous. The resulting composition was a liquid having suitable physical properties, such as a 24 hour viscosity of about 3,200 cps and a seven day viscosity of about 3,400 cps, for use as a roll-on antiperspirant product. When topically-applied to the skin, the antiperspirant product was dry as opposed to oily or sticky; and the antiperspirant product exhibited excellent esthetic properties.

The composition of Example 8 was a stable suspension demonstrating essentially no syneresis. Therefore, the composition of Example 8, including only 0.5% of the topically-active compound, demonstrates that it is the suspending agent, comprising the fumed silica and the suspending wax composition, that provides a stable dispersion as opposed to the topically-active compound. The composition of Example 8 can be compared to the compositions of Examples 1 through 7, each including 22% of the topically-active compound, to demonstrate that the suspending agent is the ingredient that provides a stable composition of the present invention.

Detailed Description Text (27):

The fumed silica was dispersed in the volatile liquid cyclomethicone and the mixture was thoroughly blended until homogeneous. The suspending wax composition then was added to the silica-silicone mixture, and blended until homogeneous. The titanium dioxide was added, and the resulting mixture was charged through a colloid mill for at least two minutes until homogeneous. The resulting composition had an initial viscosity of about 85,000 cps, and therefore was suitable for use as a semisolid sunscreen product. When topically-applied to the skin, the sunscreen product was dry as opposed to oily or sticky; and the sunscreen product exhibited excellent esthetic qualities, with good spreading and coverage properties.

Detailed Description Text (28):

Alternate volatile silicones, and mixtures of volatile silicones, can be substituted for the particular volatile silicone carrier vehicle used in the preceding examples. Similarly, other finely-divided silica compounds, such as AEROSIL COLLOIDAL SILICA, available from Degussa Corp., Teterboro, NJ., can be substituted for the CAB-O-SIL brand of fumed silica.

Detailed Description Text (33):

The anhydrous, topically-effective compositions of the present invention, comprising a topically-active compound, like an antiperspirant compound; a suspending agent comprising finely-divided silica and a suspending wax composition; and a suitable volatile liquid carrier, exhibit unique and superior properties upon topical applications to skin or hair. The improved physical and sensory properties include ultra-dry characteristics, both as to feel and drying time; storage stability; elimination of the shaking requirement to redistribute the topically-active compound prior to use; substantially reduced whitening of the skin and clothing after topical application; and substantially reduced staining of clothing.

Detailed Description Text (34):

In addition, the new suspending agent of the present invention provides stable, anhydrous topically-effective compositions that effectively disperse and suspend insoluble, particulate ingredients and that resist phase separation over a greater than one year storage period. Surprisingly, the suspending agent includes less than 2% of a finely-divided silica and does not require an organoclay compound. Accordingly, the suspending agent improves the esthetics of the topically-effective composition.

**CLAIMS:**

1. An antiperspirant composition comprising:

- (a) about 0.01% to about 50% by weight of an antiperspirant compound;
- (b) from about 20% to about 98.89% by weight of a volatile liquid carrier selected from the group consisting of a cyclic volatile silicone having a viscosity of about 0.5 to about 10 centistokes, a linear volatile silicone having a viscosity of about 0.5 to about 10 centistokes, a volatile hydrocarbon including from about 10 to about 30 carbon atoms, and combinations thereof;
- (c) from about 0.1% to less than 2% by weight of a finely-divided silica; and
- (d) from about 1% to about 15% by weight of a suspending wax composition, wherein the suspending wax composition comprises from about 5% to about 50% by weight of a wax having a melting point of at least 150.degree. F.; from about 0.1% to about 94.9% by weight of a volatile solvent selected from the group consisting of a

volatile silicone, a volatile hydrocarbon and a combination thereof, wherein said volatile silicone has a viscosity of about 0.5 to about 10 centistokes and said volatile hydrocarbon includes from about 10 to about 30 carbon atoms; and from about 0.1% to about 94.4% by weight of an ester including at least 10 to about 32 carbon atoms, provided that the composition includes about 4.5% or less by weight of the wax.

13. The composition of claim 1 wherein the finely-divided silica is present in the range of from about 0.1% to about 1.5% by weight of the composition.

14. The composition of claim 1 wherein the finely-divided silica has an average particle size ranging from about 0.001 to about 0.05 microns.

15. The composition of claim 1 wherein the finely-divided silica is fumed silica.

22. The composition of claim 1 wherein the wax of the suspending wax composition is selected from the group consisting of castor wax, beeswax, carnauba wax, ozokerite wax, hydrogenated lanolin, cocoa butter, polyethylene, stearic acid, plamitic acid, microcrystalline wax, polyoxyethylene, bayberry wax, Japan wax, jojoba wax, mink wax, ouricury wax, rice bran wax, shellac wax, and combinations thereof.

32. The composition of claim 30 wherein the nonvolatile silicone is a dimethicone, a diphenylsiloxane fluid or a combination thereof.

37. The composition of claim 36 wherein the quaternized three-layer clay is a quaternized montmorillonite clay exfoliated with propylene carbonate.

42. An antiperspirant composition for application to the skin comprising:

(a) from about 0.01% to about 50% by weight of an antiperspirant compound;

(b) from about 20% to about 99.83% by weight of a volatile liquid carrier selected from the group consisting of a cyclic volatile silicone having a viscosity of about 0.5 to about 10 centistokes, a volatile hydrocarbon including from about 10 to about 30 carbon atoms and combinations thereof;

(c) from about 0.1% to less than 2% by weight of a finely-divided silica; and

(d) from about 0.05% to about 4.5% by weight of a wax having a melting point of at least 150.degree. F.; and

(e) from about 0.01% to about 13.5% by weight of an ester including at least 10 to about 32 carbon atoms.

43. The composition of claim 42 wherein the finely-divided silica is present in the range of from about 0.1% to about 1.5% by weight of the composition.

## Search Results - Record(s) 1 through 11 of 11 returned.

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1. 20020058056. 24 Aug 01. 16 May 02. Treated substrate with improved transfer efficiency of topical application. Yahiaoui, Ali, et al. 424/402; 424/404 424/443 A01N025/34 A61K009/70 A61F013/00.
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2. 20020028223. 08 May 01. 07 Mar 02. Anhydrous cosmetic compositions. Vatter, Michael Lee, et al. 424/401; 424/63 A61K007/021.
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3. 20020025915. 06 Apr 01. 28 Feb 02. High Di(alkyl fatty ester) amines and quaternary ammonium compounds derived therefrom. Franklin, Ralph, et al. 510/515; C11D003/00.
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4. 20020018791. 08 May 01. 14 Feb 02. Anhydrous cosmetic compositions. Vatter, Michael Lee, et al. 424/401; A61K007/00.
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5. 6323167. 20 Dec 99; 27 Nov 01. High di(alkyl fatty ester) quaternary ammonium compounds in fabric softening and personal care compositions. Franklin; Ralph, et al. 510/123; 424/69 424/70.1 424/70.11 510/138 510/329 510/330 514/880. A61K007/075 A61K007/50 A61K007/035 A61K007/06.
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8. 5552137. 05 Aug 94; 03 Sep 96. Biodegradable quaternary hair conditioners. Manning; Monna M., et al. 424/70.1; 514/755 514/873. A61K007/75.
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9. 5444096. 09 Nov 93; 22 Aug 95. Stable anhydrous topically-active composition and suspending agent therefor. McCrea; Andrew D., et al. 514/770; 424/59 424/65 514/772. A61K047/04 A61K047/44.
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10. 5378455. 27 Dec 93; 03 Jan 95. Cosmetic composition for inhibiting hair growth. Kealey; George T. E., et al. 424/73; 424/401 424/62 424/70.1 424/70.6. A61K007/06.
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11. 5292530. 04 Oct 91; 08 Mar 94. Stable anhydrous topically-active composition and suspending agent therefor. McCrea; Andrew D., et al. 424/66; 252/363.5 424/47 424/59 424/68 514/817 514/844 514/852 514/859 514/861 514/863 514/864 514/880 514/887. A61K007/34 A61K007/38 A61K007/42 A61K007/48.
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Term	Documents
MONTMORILLONITE.DWPI,EPAB,JPAB,USPT,PGPB.	16606
MONTMORILLONITES.DWPI,EPAB,JPAB,USPT,PGPB.	1571
CLAY.DWPI,EPAB,JPAB,USPT,PGPB.	123699
CLAYS.DWPI,EPAB,JPAB,USPT,PGPB.	36250
(I2 AND (MONTMORILLONITE ADJ CLAY)).USPT,PGPB,JPAB,EPAB,DWPI.	11
(L12 AND MONTMORILLONITE ADJ CLAY).USPT,PGPB,JPAB,EPAB,DWPI.	11

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## Search Results - Record(s) 1 through 20 of 29 returned.

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1. 20020128621. 21 Dec 01. 12 Sep 02. Absorbent articles with simplified compositions having good stability. Kruchoski, Benjamin Joseph, et al. 604/385.01; 604/364 A61F013/15.
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2. 20020128615. 22 Dec 00. 12 Sep 02. Absorbent articles with non-aqueous compositions containing anionic polymers. Tyrrell, David John, et al. 604/364; 424/443 604/304 604/360 604/367 604/376 604/378 A61F013/15 A61F013/20.
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3. 20020086039. 27 Mar 01. 04 Jul 02. New cosmetic, personal care, cleaning agent, and nutritional supplement compositions and methods of making and using same. Lee, Sean, et al. 424/401; 424/63 424/64 A61K007/021 A61K007/025 A61K007/00.
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4. 20020058056. 24 Aug 01. 16 May 02. Treated substrate with improved transfer efficiency of topical application. Yahiaoui, Ali, et al. 424/402; 424/404 424/443 A01N025/34 A61K009/70 A61F013/00.
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5. 20020028223. 08 May 01. 07 Mar 02. Anhydrous cosmetic compositions. Vatter, Michael Lee, et al. 424/401; 424/63 A61K007/021.
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11. 6455055. 21 Dec 99; 24 Sep 02. Cosmetic compositions. Walling; David William, et al. 424/401; 424/489 424/63 424/64 514/355 514/844 514/847 514/951. A61K007/00.
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12. 6428799. 19 Nov 99; 06 Aug 02. Personal care articles. Cen; Raymond Wei, et al. 424/402; 424/400 424/401 A01N025/34 A61K006/00 A61K007/00 A61K009/00.
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13. 6323167. 20 Dec 99; 27 Nov 01. High di(alkyl fatty ester) quaternary ammonium compounds in fabric softening and personal care compositions. Franklin; Ralph, et al. 510/123; 424/69 424/70.1 424/70.11 510/138 510/329 510/330 514/880. A61K007/075 A61K007/50 A61K007/035 A61K007/06.
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15. 6309657. 28 Dec 99; 30 Oct 01. Cosmetic compositions. Vatter; Michael Lee, et al. 424/401; 424/63 424/64 514/844 514/873. A61K007/00.
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17. 6267975. 19 Nov 99; 31 Jul 01. Personal care articles. Smith, III; Edward Dewey, et al. 424/401; 424/443. A61K007/00 A61K009/70 B32B009/06.

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Term	Documents
SILICA.DWPI,EPAB,JPAB,USPT,PGPB.	361326
SILICAS.DWPI,EPAB,JPAB,USPT,PGPB.	13487
(6 AND SILICA).USPT,PGPB,JPAB,EPAB,DWPI.	29
(L6 AND SILICA).USPT,PGPB,JPAB,EPAB,DWPI.	29

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21. 6153209. 28 Sep 99; 28 Nov 00. Article having a transferable breathable skin care composition thereon. Vega; Victor Nicholas, et al. 424/404; 424/400 424/445 424/76.1 424/76.3 604/363 604/364 604/381 604/382. A01N025/34 A61L009/00 A61F013/15.
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23. 6074630. 23 Nov 99; 13 Jun 00. Delivery system for suncare products. Devillez; Richard L., et al. 424/59; 424/400 424/401 424/60 442/131 442/384. A61K007/42 A61K007/44 A61K007/00 D03D025/00.
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24. 6037315. 04 Dec 97; 14 Mar 00. High di(alkyl fatty ester) quaternary ammonium compounds in fabric softening and personal care compositions. Franklin; Ralph, et al. 510/123; 510/138 510/329 510/330. A61K007/045 A61K007/50 C11D003/42.
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25. 5610187. 07 Jun 95; 11 Mar 97. Biodegradable quaternary hair and skin conditioners. Manning; Monna M., et al. 514/552; 424/70.1 514/937 514/938 514/939 514/943 554/103 554/108. A61K031/23.
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26. 5552137. 05 Aug 94; 03 Sep 96. Biodegradable quaternary hair conditioners. Manning; Monna M., et al. 424/70.1; 514/755 514/873. A61K007/75.
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27. 5444096. 09 Nov 93; 22 Aug 95. Stable anhydrous topically-active composition and suspending agent therefor. McCrea; Andrew D., et al. 514/770; 424/59 424/65 514/772. A61K047/04 A61K047/44.
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28. 5378455. 27 Dec 93; 03 Jan 95. Cosmetic composition for inhibiting hair growth. Kealey; George T. E., et al. 424/73; 424/401 424/62 424/70.1 424/70.6. A61K007/06.
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29. 5292530. 04 Oct 91; 08 Mar 94. Stable anhydrous topically-active composition and suspending agent therefor. McCrea; Andrew D., et al. 424/66; 252/363.5 424/47 424/59 424/68 514/817 514/844 514/852 514/859 514/861 514/863 514/864 514/880 514/887. A61K007/34 A61K007/38 A61K007/42 A61K007/48.
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Term	Documents
SILICA.DWPI,EPAB,JPAB,USPT,PGPB.	361326
SILICAS.DWPI,EPAB,JPAB,USPT,PGPB.	13487
(6 AND SILICA).USPT,PGPB,JPAB,EPAB,DWPI.	29
(L6 AND SILICA).USPT,PGPB,JPAB,EPAB,DWPI.	29

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1. [20020128621](#). 21 Dec 01. 12 Sep 02. Absorbent articles with simplified compositions having good stability.  
Kruchoski, Benjamin Joseph, et al. 604/385.01; 604/364 A61F013/15.

2. [20020128615](#). 22 Dec 00. 12 Sep 02. Absorbent articles with non-aqueous compositions containing anionic polymers. Tyrrell, David John, et al. 604/364; 424/443 604/304 604/360 604/367 604/376 604/378 A61F013/15 A61F013/20.

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Term	Documents
WIPE.DWPI,EPAB,JPAB,USPT,PGPB.	33523
WIPES.DWPI,EPAB,JPAB,USPT,PGPB.	9720
(23 AND WIPE).USPT,PGPB,JPAB,EPAB,DWPI.	2
(L23 AND WIPE).USPT,PGPB,JPAB,EPAB,DWPI.	2

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**WEST** 

L25: Entry 20 of 23

File: USPT

Aug 16, 1988

DOCUMENT-IDENTIFIER: US 4763931 A

TITLE: Adhesive material for preventing reuse

Brief Summary Text (11):

However, such labels have the disadvantage of being high in cost, because the film, as the material on to which the metal is being vaporized, is limited to polyester or the like and other various conditions must be satisfied, as the metal is vaporized on to the film and the silicon layer. Moreover, there were further disadvantages such as sanitary problems caused by the attachment of dust on the tacky surface of the exposed adhesive layer, due to a part of the adhesive layer remaining on the adhering portion of the material being adhered on, when the film was torn off.

Detailed Description Paragraph Table (1):

TABLE 1 Composition Components (Parts)

	Ethylene vinyl- Vinylacetate content
10.about.50% 20.about.50 acetate co-	Melt index (MI) 2.about.500 polymer Molecular weight 10,000.about.100,000 Adhesion- Rosin 20.about.60 dative resin Hydrogenerated rosin (0.about.60) glycerol-ester Polyterpene resin Terepene-phenol resin C5 group <u>petroleum</u> resin C4 group <u>petroleum</u> resin Alicyclic group hydro- generated <u>petroleum</u> resin Wax, Oil Paraffin wax 5.about.50 Microwax (0.about.70) Polyethylene wax Polypropylene wax Parffin group, Naphtene group oils Heat stabilizer Aging preventing agent

Remark: In place of ethylene vinylacetate copolymer resin, SIS SBS, polyisobutylene and polybutene may be used.

## Search Results - Record(s) 1 through 20 of 23 returned.

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1. 20020095001. 06 Feb 02. 18 Jul 02. Methods and compositions for topical treatment of damaged tissue using reactive oxygen metabolite production or release inhibitors. Gehlsen, Kurt R.. 514/725; 424/401 A61K031/07 A61K006/00 A61K007/00.
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2. 20020079121. 25 Oct 01. 27 Jun 02. RF induction heating system. Ryan, William J., et al. 174/68.1; 156/272.2 156/384 219/634 428/423.1 H01B001/00 B32B031/00 B32B001/00 H05B006/10 B32B027/00 H02G001/00 B41M001/00.
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3. 20020050016. 20 Feb 01. 02 May 02. Cleaning sheets comprising a polymeric additive to improve particulate pick-up and minimize residue left on surfaces and cleaning implements for use with cleaning sheets. Willman, Kenneth William, et al. 15/104.002; 15/208 15/209.1 15/228 15/231 15/244.2 428/343 A47L013/20.
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6. 20010035406. 31 May 01. 01 Nov 01. Apparatus for RF active compositions used in adhesion, bonding, and coating. Ryan, William J., et al. 219/634; 219/660 H05B006/06.
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7. 20010018059. 19 Jan 01. 30 Aug 01. Methods and compositions for topical treatment of damaged tissue using reactive oxygen metabolite production or release inhibitors. Gehlsen, Kurt R.. 424/401; 424/59 424/65 424/70.6 424/70.7 514/844 514/887 A61K006/00 A61K007/00 A61K007/42 A61K007/32 A61K007/06.
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9. 6348679. 13 Jan 00; 19 Feb 02. RF active compositions for use in adhesion, bonding and coating. Ryan; William J., et al. 219/634; 428/345. H05B006/10.
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10. 6291055. 06 May 99; 18 Sep 01. Thermo-transfer ribbon. Krauter; Heinrich. 428/195; 428/488.4 428/913 428/914. B41M005/10.
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12. 5834151. 25 Mar 97; 10 Nov 98. Image forming method. Wada; Yasunori. 430/201; 430/200 430/203 430/207 430/220 430/346 430/353 430/496 430/950 503/227. G03C001/765 G03C008/52 G03C011/06.
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15. 5525426. 21 Jul 94; 11 Jun 96. Poly(vinylalkylether)-containing hot-melt adhesives for polyethylene and polypropylene. Kulzick; Matthew A., et al. 428/412; 428/441 428/461 428/483 428/513 428/516 428/517 428/523. B32B027/00 B32B027/28 B32B017/10 B32B015/08.
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C08L029/10 C08L023/20.

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18. 4826213. 22 Feb 88; 02 May 89. Adhesive material for preventing reuse. Matsuguchi; Tadashi, et al. 283/108; 283/81 428/916. B42D015/00.
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19. 4783579. 29 Apr 86; 08 Nov 88. Flat multi-conductor power cable with two insulating layers. Brandolf; Henry E., et al. 174/117FF; 156/55 156/56 174/120AR 174/120SR 264/171.16 264/171.21. H01B017/08 H01B013/14.
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20. 4763931. 26 Sep 85; 16 Aug 88. Adhesive material for preventing reuse. Matsuguchi; Tadashi, et al. 283/108; 283/81 428/916. B42D015/00.
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Term	Documents
ETHYLENE.DWPI,EPAB,JPAB,USPT,PGPB.	471087
ETHYLENES.DWPI,EPAB,JPAB,USPT,PGPB.	1532
VINYLACETATE.DWPI,EPAB,JPAB,USPT,PGPB.	10219
VINYLACETATES.DWPI,EPAB,JPAB,USPT,PGPB.	85
COPOLYMER.DWPI,EPAB,JPAB,USPT,PGPB.	433449
COPOLYMERS.DWPI,EPAB,JPAB,USPT,PGPB.	204315
((ETHYLENE ADJ VINYLACETATE) ADJ COPOLYMER) AND 2).USPT,PGPB,JPAB,EPAB,DWPI.	23
(L2 AND ETHYLENE ADJ VINYLACETATE ADJ COPOLYMER).USPT,PGPB,JPAB,EPAB,DWPI.	23

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## Search Results - Record(s) 1 through 14 of 14 returned.

- 
1. [20020128621](#). 21 Dec 01. 12 Sep 02. Absorbent articles with simplified compositions having good stability. Kruchoski, Benjamin Joseph, et al. 604/385.01; 604/364 A61F013/15.
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4. [20020120241](#). 22 Dec 00. 29 Aug 02. Absorbent articles with hydrophilic compositions containing anionic polymers. Tyrrell, David John, et al. 604/364; 424/443 604/304 604/360 604/367 604/376 604/378 A61F013/15 A61F013/20.
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7. [6440437](#). 24 Jan 00; 27 Aug 02. Wet wipes having skin health benefits. Krzysik; Duane Gerard, et al. 424/402; 424/400 424/443. A61K009/00 A61K009/70 A61F013/00.
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11. [4588683](#). 06 Feb 84; 13 May 86. Method of preparing 11.beta., 17.alpha., 20, 21-tetrahydroxy steroids and corresponding 11.beta., 17.alpha., 21-trihydroxy-20-oxo steroids. Goodhue; Charles T., et al. 435/59; 435/911. C12P033/08 C12R001/645.
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12. [4124607](#). 15 Apr 77; 07 Nov 78. Preparation of sterol substrates for bioconversion. Beaton; John M.. 552/545; 552/544 552/547. C07J009/00.
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Term	Documents
SOY.DWPI,EPAB,JPAB,USPT,PGPB.	30359
SOYS.DWPI,EPAB,JPAB,USPT,PGPB.	36
SUBSTRATE\$	0
SUBSTRATE.DWPI,EPAB,JPAB,USPT,PGPB.	1388254
SUBSTRATEA.DWPI,EPAB,JPAB,USPT,PGPB.	19
SUBSTRATEAAND.DWPI,EPAB,JPAB,USPT,PGPB.	1
SUBSTRATEABLY.DWPI,EPAB,JPAB,USPT,PGPB.	1
SUBSTRATEABRASIVE.DWPI,EPAB,JPAB,USPT,PGPB.	1
SUBSTRATEACCURATELY.DWPI,EPAB,JPAB,USPT,PGPB.	1
SUBSTRATEADHESIVE.DWPI,EPAB,JPAB,USPT,PGPB.	2
SUBSTRATEADHESIVE-SUBSTRATE.DWPI,EPAB,JPAB,USPT,PGPB.	1
(SUBSTRATE\$ AND SOY ADJ STEROL\$).USPT,PGPB,JPAB,EPAB,DWPI.	14

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